

ABSTRACT OF THE DISCLOSURE

A device for driving a solenoid including a power supply, a switching element connected between the power supply and the solenoid in series therewith, a current circulating diode connected in parallel to the solenoid, a current detecting circuit for detecting an actual current flowing through the solenoid, and a PID computing unit for computing an on-duty value and an off-duty value according to a difference between a target current and the actual current detected and for outputting the on-duty value and the off-duty value. The device further includes a PWM duty driving unit for generating a PWM duty signal according to inputting of the on-duty value and supplying the PWM duty signal to the switching element to on/off control the switching element, and a reverse voltage applying circuit capable of applying a voltage of the power supply as a reverse voltage to the solenoid according to inputting of the off-duty value when the switching element is off.